

050704-001404

5 resolving a stack tag from a header of said incoming data packet;

forwarding said incoming data packet to a second type of switch of said series of network switches, on a first stacked connection operating at a first data rate, based on the stack tag;

forwarding said incoming data packet to another second type switch, on a second stacked connection operating at a second data rate, based on the resolved destination address;

determining an egress port of said another first type switch based on said stack tag and forwarding the incoming data packet to said egress port.

84

3. A method of handling data packets as recited in claim 1, further comprising the steps of:

resolving a mirroring field of said incoming data packet;

forwarding said incoming data packet to a mirroring port based on said mirroring
5 field.

4. A method of handling data packets as recited in claim 1, wherein said second data rate is four times said first data rate.

5. A method of handling data packets as recited in claim 1, wherein said second data rate is 10 Gigabits and said first data rate is 2.5 Gigabits.

6. A network switch for network communications, said network switch comprising:

a first data port interface, said first data port interface supporting at least one data port transmitting and receiving data at a first data rate;

5 a second data port interface, said second data port interface supporting at least one data port transmitting and receiving data at a second data rate, different from the first data rate;

a memory communicating with said first data port interface and said second data port interface;

10 a memory management unit, said memory management unit for communicating data from said first data port interface and said second data port interface and said memory; and

00077040-001704

means for resolving a destination address of said incoming data packet by said first type of switch and modifying the header of said incoming packet; and

10 means for forwarding said incoming data packet to another second type switch, on a second stacked connection operating at a second data rate, based on the resolved destination address;

means for modifying said header of said incoming data packet and forwarding said incoming data packet to another first type switch on a third stacked connection
15 operating at said first data rate;

means for determining an egress port of said another first type switch based on said stack tag and forwarding the incoming data packet to said egress port.

10. A network switch as recited in claim 9, wherein said means for modifying the header of said incoming packet comprises means for adding or removing a module header to or from said header to be evaluated by said first and second type switches.

11. A network switch as recited in claim 9, further comprising:

means for resolving a mirroring field of said incoming data packet; and

means for forwarding said incoming data packet to a mirroring port based on said mirroring field.

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12. A network switch as recited in claim 9, wherein said second data rate is four times said first data rate.

13. A network switch as recited in claim 9, wherein said second data rate is 10

Gigabits and said first data rate is 2.5 Gigabits.